

Phases R1 and R2 Rugby Gateway Warwickshire

*Addendum to the Post-Excavation Assessment and
Updated Project Design*



for
Bloor Homes and Cala
Homes (Mids) Ltd

CA Project: 669002
CA Report: 13065



Phases R1 and R2
Rugby Gateway
Warwickshire

Addendum to the Post-Excavation Assessment
and
Updated Project Design

CA Project: 669002
CA Report: 160161

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CONTENTS

SUMMARY	4
1 INTRODUCTION.....	5
<i>Location, topography and geology</i>	5
<i>Archaeological background</i>	5
2 AIMS AND OBJECTIVES.....	6
3 METHODOLOGY	6
4 RESULTS	7
<i>Earlier prehistoric (pre-2400 BC)</i>	7
<i>Bronze Age (2400 – 700 BC)</i>	8
<i>Undated</i>	9
5 FACTUAL DATA AND STATEMENTS OF POTENTIAL.....	9
<i>Stratigraphic Record: factual data</i>	9
<i>Stratigraphic record: statement of potential</i>	9
<i>Artefactual record: factual data and statement of potential</i>	10
<i>Biological record: factual data</i>	10
<i>Biological record: statements of potential</i>	10
6 SUMMARY STATEMENT OF POTENTIAL.....	11
7 STORAGE AND CURATION.....	12
8 UPDATED AIMS AND OBJECTIVES	12
9 PUBLICATION	12
10 REFERENCES.....	13
APPENDIX 1: PLANT MACROFOSSILS, WOOD AND CHARCOAL BY SARAH COBAIN	14
APPENDIX 2: OASIS REPORT FORM.....	18

LIST OF ILLUSTRATIONS

- Fig. 1 Site location plan (1:25,000)
Fig. 2 Revision to plan of Area D (scale 1:200)

SUMMARY

Site Name:	Phases R1 and R2, Rugby Gateway
Location:	Warwickshire
NGR:	SP 5080 7840
Type:	Excavation
Date:	January 2014
Location of archive:	To be deposited with Rugby Art Gallery and Museum
Accession Number:	RTA.1025
Site Code:	RGA14

A programme of archaeological investigation was undertaken by Cotswold Archaeology in June and August 2012 at the request of Bloor Homes and Cala Homes (Midlands) Ltd at Phases R1 and R2, Rugby Gateway, Warwickshire (Fig. 1). A post-excavation assessment (PXA) and updated project design (UPD) for the 2012 archaeological investigations was produced in March 2013 (CA 2013).

In January 2014, a tree located at the north-western edge of Phase R2 Area D was felled, and the excavation area was extended under the former location of the tree (Fig. 2). In compliance with an approved Written Scheme of Investigation for Further Archaeological Works (CA 2011) an area of 25m² was excavated, bringing the combined excavation area for Phase R2 Area D to 50m² (Fig. 2)

Excavations at Phase R2 Area D in 2012 revealed a well-preserved burnt mound complex, Bronze Age in date, located at the base of a valley on a natural spring line. Archaeological features excavated in 2014 included the continuation of the silting deposits, burnt mound material and a curving ditch excavated in 2012, along with additional pits, postholes and a second curving ditch.

This document forms an addendum to the 2013 PXA and UPD (CA 2013). It presents a quantification and assessment of the evidence recovered from the 2014 excavation and outlines any alterations to the UPD set out in the 2013 PXA and UPD (CA 2013) for a programme of post-excavation work.

1 INTRODUCTION

- 1.1 During June and August 2012 Cotswold Archaeology (CA) carried out an archaeological excavation at Phases R1 and R2 Rugby Gateway, Warwickshire (centred on NGR: SP 5080 7840; Fig. 1). A post-excavation assessment (PXA) and updated project design (UPD) for the 2012 archaeological investigations was produced in March 2013 (CA 2013).
- 1.2 In January 2014, a tree located at the north-western edge of Phase R2 Area D was felled and the excavation area extended under the former location of the tree (Fig. 2). The work was undertaken at the request of Bloor Homes and Cala Homes (Midlands) Ltd in accordance with a Written Scheme of Investigation for Further Archaeological Works (CA 2011) approved by Rugby Borough Council (RBC, the Local Planning Authority) acting on the advice of Anna Stocks (Planning Archaeologist, Warwickshire County Council). The fieldwork also followed *Standard and Guidance: Archaeological Excavation* (ClfA 2014); the *Management of Archaeological Projects* (English Heritage 1991) and the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (English Heritage 2006). It was monitored by Anna Stocks.

Location, topography and geology

- 1.3 The overall Rugby Gateway is bounded by the M6 to the north, by the A426 (Leicester Road) to the east, by industrial and residential development to the south, and by a feeder to the Oxford Canal to the west (Fig. 1). The site as a whole encompasses approximately 126ha. Phases R1 and R2 were located at the southern end of the overall development area.
- 1.4 Phase R2 Area D was located in the of the Rugby Gateway development. The excavation area encompassed part of a field covered by scrub/wild grass and was situated within the base of one of three valleys crossing the field from east to west, within an area of surviving ridge-and-furrow.
- 1.5 The underlying geology of the area is mapped as Mudstone of the Charmouth Mudstone Formation overlain by superficial deposits of clay, silt, sand and gravel (BGS 2015).

Archaeological background

- 1.6 Archaeological background is discussed in detail within the post-excavation assessment (PXA) and updated project design (UPD) (CA 2013).

2 AIMS AND OBJECTIVES

2.1 The aims of the Phase R2 Area D (extension) excavation were to establish the character, quality, date, significance and extent of any archaeological remains or deposits surviving within the area located beneath the felled oak tree. This information will assist the Local Planning Authority in making an informed judgement on the likely impact upon the archaeological resource by the proposed development.

2.2 The objectives of the excavation were laid out in a project design produced by CA (2011) in accordance with brief specification, as follows:

- Record the nature of the main stratigraphic units encountered
- Assess the overall presence, survival and potential of structural and industrial remains
- Assess the overall presence, survival, condition and potential of artefactual and ecofactual remains
- Record any evidence of past settlement or other land use
- Recover artefactual evidence to date any evidence of past settlement that may be identified
- Sample and analyse environmental remains to create a better understanding of past land use and economy

3 METHODOLOGY

3.1 Fieldwork commenced with the removal of topsoil and subsoil from the excavation area by mechanical excavator with a toothless grading bucket, under archaeological supervision.

3.2 The archaeological features thus exposed were hand-excavated to the bottom of archaeological stratigraphy. For linear features (e.g. ditches/gullies, paths/tracks), 10% of each feature was excavated. Excavation specifically targeted any intersections of features so that their stratigraphic relationships could be recorded. A minimum of 50% of the deposits were excavated from each pit. Any deposits relating to funerary/ritual activities (e.g. burials, cremations) and domestic/industrial

activity (e.g. walls, postholes, and floor surfaces/floor make-up deposits) were investigated by removing a 100% sample of the deposit from each feature. All features were planned and recorded in accordance with CA Technical Manual 1: *Fieldwork Recording Manual* (CA 2013). Deposits were assessed for their environmental potential and sampled appropriately in accordance with CA Technical Manual 2: *The taking of samples for paleoenvironmental and palaeoeconomic analysis from archaeological sites* (CA 2012). All artefacts recovered from the excavation were retained in accordance with CA Technical Manual 3: *Treatment of finds immediately after excavation* (CA 1995).

4 RESULTS

4.1 This section provides an overview of the excavation results, detailed summaries of the recorded contexts, and any re-interpretation of features excavated during the 2012 excavation where the extended excavation area has provided additional interpretative information. No archaeological artefacts were recovered and as such the site has been phased based on radiocarbon dating (CA 2013), feature morphology and spatial/stratigraphic relationships to those features that were radiocarbon dated. A detailed summary of the environmental samples (biological evidence) can be found in Appendix 1.

4.2 In the following text, context numbers prefixed “4” were recorded during the 2012 works; context numbers prefixed “1” were recorded during the 2014 works. Features/deposits within the 2012 excavation which are shown on Fig. 2, but not discussed in this text, or within the plant macrofossils, wood and charcoal report (Appendix 1), are discussed in the PXA and UPD (CA 2013).

Earlier prehistoric (pre-2400 BC)

4.3 The natural substrate, comprising a dark reddish brown silty sand approximately 0.18m deep, was overlain by a sequence of clayey silt layers (1010/4114) (Fig. 2). Given the location of the site within the base of a natural valley these layers most likely represent silting on the valley floor. These layers were artefactually undated, but they were sealed below Bronze Age burnt mound deposits 1012/4080 (discussed below) and were cut by Bronze Age ditch 1020/4112 (discussed below) confirming an earlier prehistoric date for their formation.

Bronze Age (2400 – 700 BC)

- 4.4 A burnt mound complex lay within the centre of the excavation area. The interpretation of this feature is based on the presence of the distinctive characteristics of a 'burnt mound', which include a mound of heat-affected stones and charcoal, pits/troughs located adjacent to or below the mound, and the position of the site, at the base of a valley floor on a natural spring line providing a water source (EH 2011).
- 4.5 The earliest phase of the burnt mound comprised a shallow sub-circular ditch 4112, identified during the first phase of excavation. The ditch was traced extending to the north (recorded as ditch 1020) during the extended excavation. Ditch 1020/4112 was 1.0m to 2.6m in width, and 0.12m to 0.25m in depth. It enclosed an area approximately 8.8m in length by 4.8m in width.
- 4.6 A cluster of four pits or postholes (4094, 4097, 4100 and 4102) lay within the area enclosed by ditch 1020/4112. No further internal features were revealed within the extended excavation area.
- 4.7 Following the silting up of ditch 1020/4112, three pits were cut into its northern edge. Pit 1024 was truncated by ditch 1046 (see below) but survived to 3.2m in length, 2m in width and 0.5m in depth. Pit 1038 was also truncated by ditch 1046, but survived to 2.4m in length and 1.4m in width, and was 0.94m deep. Pit 1048 was truncated through its middle by ditch 1046, and was 3m long, 2m wide and 0.38m deep.
- 4.8 Curved ditch 1046 ran along the outer edge of the northern side of ditch 4112/1020, truncating pits 1024, 1038 and 1048. This ditch was 0.9m wide and 0.34m deep. It had been truncated at its eastern and western ends by pits 4107 and 4060 (excavated in 2012). Pit 4107 was 2.8m in diameter and over 0.85m in depth. Pit 4060 was approximately 6m in diameter and over 1m in depth.
- 4.9 External to ditch 1046, three postholes were identified. Posthole 1026 was 0.23m in diameter and 0.13m in depth, with adjacent posthole 1028 slightly larger at 0.35m in diameter and 0.14m in depth. Posthole 1036 lay closest to ditch 1020/4112, and was 0.30m in diameter and 0.24 deep.
- 4.10 All of the features discussed described above were overlain and partially filled by a thick series of burnt layers including deposits 1012/4080, which contained large quantities of fire-cracked stones and charcoal.

Undated

- 4.11 North/south-aligned ditch 4031 was identified during the 2012 excavations and ran north-south at the southern limit of Area D. It cut into the southern edge of the burnt mound material before petering out. It was not observed continuing north during the 2014 excavation.
- 4.12 A single pit 1013 located to the north-west of burnt mound material 1012 was excavated, measuring 1.2m long, 0.7m wide and 0.24m deep. It contained no artefactual material.

5 FACTUAL DATA AND STATEMENTS OF POTENTIAL***Stratigraphic Record: factual data***

- 5.1 Following the completion of the fieldwork an ordered, indexed, and internally consistent site archive was compiled in accordance with specifications presented in the *Management of Archaeological Projects* (EH 1991). A database of all contextual and artefactual evidence and a site matrix was also compiled and cross-referenced to spot-dating. The combined 2012/2014 fieldwork comprises the following records:

Context sheets	371
Plans (1:10, 1:20, 1:100)	17
Sections (1:10, 1:20)	61
Sample sheets	38
Monochrome Films	6
Digital photographs	348
Matrices	5

- 5.2 The survival and intelligibility of the site stratigraphy was good with archaeological remains having survived as negative features. Despite the absence of artefactual dating material from both the 2012 and 2014 excavation, most features have been assigned a preliminary period based on radiocarbon dates (CA 2012) and/or spatial association.

Stratigraphic record: statement of potential

- 5.3 A secure stratigraphic sequence is essential to elucidating the form, purpose, date, organisation and development of the various phases of activity represented. This can be achieved through further stratigraphic analysis. The refined sequence will then serve as the spatial and temporal framework within which other biological evidence can be understood.

5.4 At Phase R2 Area D there was a well-preserved stratigraphic sequence by virtue of the site lying in a valley floor with silting deposits both above and below the burnt mound deposits. The additional contexts excavated during the 2014 excavations have added and further clarified this sequence. Despite the absence of artefactual dating material, the radiocarbon dating from the 2012 excavations and the secure stratigraphic sequence allow good potential for fully elucidating the development of the site.

Artefactual record: factual data and statement of potential

5.5 No artefactual material was recovered during the 2014 excavation.

Biological record: factual data

5.6 All ecofactual material recovered from both the 2012 and 2014 excavation has been processed, quantified and catalogued by context. A total of nine bulk samples (four from the 2012 excavation and five from the 2014 excavation) were recovered from pits and burnt mound and silting deposits, the Phase R2 Area D excavation taken for the recovery of environmental remains. A total of 14 fragments of unworked wood were also recovered from the 2012 excavation. The statement of potential for plant macrofossils and charcoal below includes material from both the 2012 and 2014 excavations.

Type	Category	Count
Bulk soil samples	Environmental	9 samples
Waterlogged Wood	Environmental	14 fragments

Animal bone

5.7 No additional animal bone was recovered from the 2014 excavation.

Plant macrofossil and charcoal

5.8 Charcoal from the Phase R2 Area D 2012 and 2014 excavations was identified as field maple, alder/hazel, oak, ash, hawthorn/rowan/crab apple, cherry species and willow/poplar. Waterlogged wood was identified as oak. Plant macrofossils were rare with only a small number of waterlogged sedge, bramble and nightshade seeds identified.

Biological record: statements of potential

Animal bone

5.9 No additional animal bone was recovered from the 2014 excavation

Plant macrofossil and charcoal

- 5.10 The abundant charcoal from pits 4107, 1038 and 1024 is recommended for further work to provide an overview of fuel used in burnt mound activity and ascertain whether this material was coming from open stands of mature woodland, managed woodland or scrub. The data from this site will add to the understanding of fuel use within burnt mound complexes and wider research at the publication stage will provide comparative examples with charcoal analyses. This will allow comparisons to be made between sites in the Midlands regarding fuel acquisition and use and local woodland reconstruction. The data will also be available for future regional research reviews.

6 SUMMARY STATEMENT OF POTENTIAL

- 6.1 The 2014 archaeological excavation exposed the full extent of the Bronze Age burnt mound complex (partially investigated in 2012) in Phase R2, Area D.
- 6.2 Burnt mounds usually date to the Bronze Age (2400–700 BC) (EH 2011). Two radiocarbon dates were obtained from burnt mound layers 4076 and 4090 (not on Fig. 2) making up burnt mound 4080, which provided identical dates of 1415–1267 cal. BC (SUERC-44587 and SUERC-44588; 95% probability), placing this site firmly within the Middle Bronze Age period.
- 6.3 The technology of burnt mounds is well documented. Stones were heated in a nearby fire and placed in a water-filled pit or trough, bringing the water to boil. Once cooled, the stones were removed from the trough and discarded, creating a mound or spread of heat shattered stones around the working area. How the boiled water was utilised is more difficult to surmise. Theories put forward include cooking, bathing, brewing or other activities such as leather working, although as with nearly all burnt mound sites, the absence of artefactual material has prevented any further interpretation (EH 2011).
- 6.4 This burnt mound comprised three ditches together with five larger pits or troughs and a series of other smaller pits and postholes. The site was sealed by a series of burnt mound deposits comprising burnt stones and charcoal. The numerous cut features suggest there were several phases of activity at the site, with new ditches and pits being dug as the old ones silted up or were filled with burnt waste.

- 6.5 The ditches may have served either a water management function, to facilitate a dry working area or to channel water for use in the pits/troughs. Clusters of small pits and postholes located to the south-west and north of the site and within the internal area defined by ditch 1020/4112 may represent the remains of temporary structures such as wind-breaks or shelters.
- 6.6 Further analysis of the excavated data has the potential to elucidate the number of phases of use within the burnt mound complex. The bulk soil samples yielded moderate assemblages of charcoal which may provide details of the fuel used within burnt mound activities, as well as reconstruction local woodland composition and management. Taken together, a summary publication based upon further analysis of excavated data will contribute to a fuller understanding of the nature of burnt mound activity represented on site.

7 STORAGE AND CURATION

- 7.1 The archive is currently held at CA offices, Milton Keynes, whilst post-excavation work proceeds. Upon completion of the project and with the agreement of the legal landowners, the site archive and artefactual collection will be deposited with Rugby Art Gallery and Museum (accession number: RTA.1025), which has agreed in principle to accept the complete archive upon completion of the project.
- 7.2 A summary of information from this project, set out in Appendix 2, will be entered onto the OASIS online database of archaeological projects in Britain.

8 UPDATED AIMS AND OBJECTIVES

- 8.1 The data from the 2014 works does not significantly alter the aims and objectives set out in Chapter 8 of the PXA and UPD (CA 2013).

9 PUBLICATION

- 9.1 The data from the 2014 works does not significantly alter the publication proposals set out in Chapter 9 of the PXA and UPD (CA 2013), which remain appropriate to the significance of the discoveries made at the site.

10 REFERENCES

- Anderberg A-L. 1994 *Atlas of seeds; Part 4* Uddevalla, Swedish Museum of Natural History
- Berggren, G. 1981 *Atlas of seeds; Part 3* Arlöv, Swedish Museum of Natural History
- BGS (British Geological Survey) 2015 Geology of Britain Viewer http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html (accessed 17 November 2015)
- CA (Cotswold Archaeology) 2011 *Rugby Gateway, Warwickshire: Written Scheme of Investigation for further Archaeological Works*
- CA (Cotswold Archaeology) 2013 *Phases R1 and R2, Rugby Gateway, Warwickshire: Post-Excavation Assessment and Updated Project Design*, CA Report **13065**
- Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A. 2006 *Digital seed atlas of the Netherlands, Groningen Archaeological Studies 4* Eelde, Barkhuis Publishing, <http://dzn.eldoc.uu.nl/> (accessed 18 January 2013 and 25 June 2015)
- EH (English Heritage) 2011 *Introductions to Heritage Assets: Burnt Mounds*
- Gale, R. and Cutler, D.F. 2000 *Plants in Archaeology; Identification Manual of Artefacts of Plant Origin from Europe and the Mediterranean* Otley, Westbury and the Royal Botanic Gardens Kew
- Hodder, M. 2002 *Burnt mounds and beyond: the later prehistory of Birmingham and the Black Country, West Midlands Regional Research Framework for Archaeology, Seminar 2*, <http://www.birmingham.ac.uk/schools/iaa/departments/archaeology/research/wmrrfa/seminar2.aspx> (accessed 18 January 2013)
- Schoch, W., Heller, I., Schweingruber, F. H. and Kienast, F., 2004 *Wood anatomy of Central European species*, www.woodanatomy.ch (accessed 18 January 2013)
- Stace, C. 1997 *New Flora of the British Isles* Cambridge, Cambridge University Press
- Wheeler, E.A., Baas, P. and Gasson, P.E. 1989 'IAWA list of microscopic features for hardwood identification', *IAWA Bulletin* ns **10**, 219–332

APPENDIX 1: PLANT MACROFOSSILS, WOOD AND CHARCOAL BY SARAH COBAIN

Introduction

A total of nine bulk soil samples (four from the 2012 excavation and five from the 2014 excavation) were retrieved for plant macrofossil, wood and charcoal assessment taken from an Earlier Prehistoric silting layer, Bronze Age burnt mound material and associated pits at Phase R2 Area D. The aim of this assessment is to determine the type, preservation and quantity of plant macrofossil and charcoal remains recovered and use this to assess the potential of these remains to provide evidence of socio-economic of activities being undertaken on the site (crop husbandry, diet, living conditions of communities, exploitation of woodlands for fuel, woodland management), and to infer the composition of the local flora and woodlands.

Results

The results from Phase R2 Area D (2012 and 2014 excavations) are presented in tabular form (Tables 1–3) and are discussed below. SS refers to the Soil Sample number. In the following text, context numbers prefixed “4” were recorded during the 2012 works; context numbers prefixed “1” were recorded during the 2014 works. Features/deposits within the 2012 excavation which are shown on Fig. 2, but not discussed in this text, are discussed in the PXA and UPD (CA 2013).

Earlier Prehistoric

Sample 31 was recovered from clay silt deposit 4119 under burnt mound deposit 4076. There were no plant macrofossil recovered from this deposit and the charcoal, whilst abundant, was too highly fragmented to identify. No further work is recommended. Clay silt deposits 1010 (SS 4ext) and 1030 (SS 3ext) were sampled and contained no plant macrofossil material. Charcoal in deposit 1010 was rare with only three fragments of oak recorded. The charcoal within deposit 1030 was moderately abundant and identified as oak and cherry species (*Prunus*). The paucity, mixed nature and uncertain origin of this silting material, means no further work is recommended.

Bronze Age

Samples were taken from burnt mound material 4076 (SS 17), fill 4090 within pit 4107 (SS 27), fills 1025 (SS 1ext) and 1031 (SS 2ext) within pit 1024 and fill 1043 within pit 1038 (SS 5 ext).

Burnt mound material 4076, pits 1024 and 1038 contained no plant macrofossil remains. The fill within pit 4107 was waterlogged, however had poor preservation and only a single bramble spp (*Rubus* spp), sedge spp (*Carex* spp) and nightshade spp (*Solanum* spp) seed remained. The paucity and poor preservation of this material means no further plant macrofossil work is recommended.

Charcoal from burnt mound material 4076 was abundant but highly fragmented and poorly preserved. Oak spp (*Quercus* spp) and hawthorn/rowan/crab apple (*Crataegus monogyna/Sorbus/Malus sylvestris*) fragments were identified, but the paucity and high fragmentation means no further work is recommended. The charcoal from pit 1024 and 1038 and pit 4107 was moderately abundant to abundant and well-preserved consisting of oak, ash (*Fraxinus sylvestris*), maple (*Acer campestre*), alder/hazel (*Alnus glutinosa/Corylus avellana*),

hawthorn/rowan/crab apple and willow/poplar (*Salix/Populus*) fragments. It is recommended that further work is undertaken on charcoal from all three features.

Pit 4107 also contained some fragments of unworked waterlogged wood. These were however very poorly preserved and required freezing in order to stabilise before they could be identified. After freezing it was possible to identify eight fragments of oak although it was not possible to collate any other information from the wood (number of tree rings, thickness of rings) due to its friable nature; six other fragments remained unidentifiable. These identifications will be incorporated into the publication report.

Undated

Fill 4015 within pit 4016 (SS 16) located to the north-eastern corner of the site contained no plant macrofossils but did contain a moderate assemblage of charcoal identified as hawthorn/rowan/crab apple and willow/poplar. As this feature is undated and outside the main burnt mound area no further work is recommended.

Discussion, statement of potential and recommendations for further work

The plant macrofossils were recovered in small quantities and were poorly preserved. The charcoal was recovered in moderate quantities and well preserved.

Earlier Prehistory

No further work is recommended.

Bronze Age

The abundant charcoal from pits 4107, 1038 and 1024 is recommended for further work to provide an overview of fuel used in burnt mound activity and ascertain whether this material is coming from open stands of mature woodland, managed woodland or scrub. The West Midlands Regional Research Framework for Archaeology states that burnt mounds are a relatively common Bronze Age monument in the Birmingham area (Hodder 2002, 1–2). However, preliminary research suggests there does not appear to be a large number of sites where full charcoal analysis has been undertaken. The data from this site will add to our understanding of fuel use within burnt mound complexes and wider research at the publication stage will hopefully provide some comparative examples with charcoal analyses. This will hopefully allow comparisons to be made between sites in the Birmingham area and further east regarding fuel acquisition and use and local woodland reconstruction. This data will also then be available to feed into future regional research reviews.

Table 1 Charcoal identifications

Area			D Ext	D Ext	D	D Ext	D Ext	D Ext	D	D	D
Context number			1010	1030	4119	1025	1031	1043	4015	4076	4090
Feature number			-	-	-	1024	1024	1038	4016	-	4107
Sample number			4 ext	3 ext	31	1 ext	2 ext	5 ext	16	17	27
Flot volume (ml)			3	2.5	1	111	1.5	17	85	25	36
Sample volume (l)			17	18	15	15	16	15	16	12	13
Soil remaining (l)			20	20	20	20	20	20	20	20	10
Period			EPRE	EPRE	EPRE	BA	BA	BA	BA	BA	BA
Charcoal quantity (>2mm)			+	++++	+	++++	++	++++	++++	++	++++
Charcoal preservation			Good	Moderate	N/A	Moderate	Moderate	Moderate	Good	Poor	Good
Recommendations for full analysis			No	No	No	Yes	No	Yes	No	No	Yes
Family	Species	Common Name									
Aceraceae	<i>Acer campestre</i> L.	Field maple r/w					1				
Betulaceae	<i>Alnus glutinosa</i> (L.) Gaertn./ <i>Corylus avellana</i> L.	Alder/hazel				2					
	<i>Alnus glutinosa</i> (L.) Gaertn./ <i>Corylus avellana</i> L.	Alder/hazel r/w						1			
Fagaceae	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile/pedunculate oak	3	7		5	2	8		5	4
	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile/pedunculate oak h/w					1				
	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile/pedunculate oak r/w				1		1			2
Oleaceae	<i>Fraxinus excelsior</i> L.	Ash r/w									1
Rosaceae	<i>Crataegus monogyna</i> Jacq./ <i>Sorbus</i> L./ <i>Malus sylvestris</i> (L.) Mill.	Hawthorn/rowan/ crab apple				2			6	4	2
	<i>Crataegus monogyna</i> Jacq./ <i>Sorbus</i> L./ <i>Malus sylvestris</i> (L.) Mill.	Hawthorn/rowan/ crab apple r/w							2		
	<i>Prunus</i> L.	Cherry		3							
Salicaceae	<i>Salix</i> L./ <i>Populus</i> L.	Willow/poplar							2	1	1
		Indeterminate									
Total:			3	10	0	10	3	10	10	10	10

Key

r/w = roundwood; h/w = heartwood (tyloses present)

All remains carbonised unless marked as (WL) = waterlogged

HSW = hedgerow/woodland/scrub; D = opportunistic species; A = arable weeds; M = marshland species

D = (Area D; 2012 excavation) D Ext (Area D extension; 2014 excavation)

+ = 1–4 items; ++ = 5–20 items; +++ = 21–50 items; ++++ = 51–99 items; +++++ = 100–500 items; ++++++ = >500 items

EPRE = Earlier Prehistoric; BA = Bronze Age

Table 2 Plant macrofossil identifications

Area	D Ext	D Ext	D	D Ext	D Ext	D Ext	D	D	D	
Context number	1010	1030	4119	1025	1031	1043	4015	4076	4090	
Feature number	-	-	-	1024	1024	1038	4016	-	4107	
Sample number	4 ext	3 ext	31	1 ext	2 ext	5 ext	16	17	27	
Flot volume (ml)	3	2.5	1	111	1.5	17	85	25	36	
Sample volume (l)	17	18	15	15	16	15	16	12	13	
Soil remaining (l)	20	20	20	20	20	20	20	20	10	
Period	EPRE	EPRE	EPRE	BA	BA	BA	BA	BA	BA	
Plant macrofossil preservation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Recommended for further work	No	No	No	No	No	No	No	No	No	
Habitat Code	Family	Species	Common Name							
			Modern seeds							
M/D	Cyperaceae	<i>Carex</i> L.	Sedges (WL)							+
A/D	Polygonaceae	<i>Persicaria</i> Mill.	Knotweeds							
HSW/D	Rosaceae	<i>Rubus</i> L.	Brambles (WL)							+
A/D	Solanaceae	<i>Solanum</i> L.	Nightshades (WL)							+
			Waterlogged twigs (unidentifiable)							+++
			Waterlogged organic fragments (unidentifiable)							++++

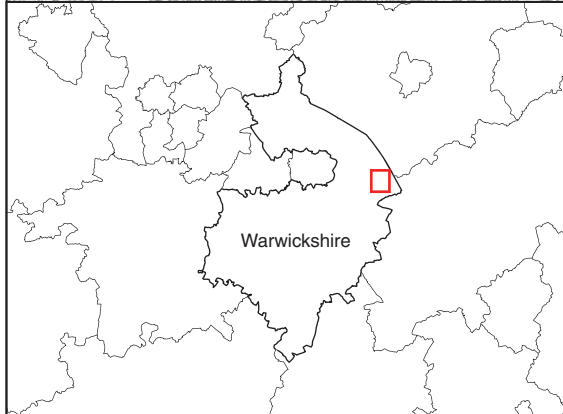
Table 3 Wood identifications

Area	D		
Context number	4090		
Feature number	4107		
Period	BA		
Wood preservation	Poor		
Recommendations for further work	No		
Family	Species	Common Name	
Fagaceae	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile/pedunculate oak	
	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile/pedunculate oak h/w	
	<i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Sessile/pedunculate oak r/w	
		Indeterminate	
Total:			14

APPENDIX 2: OASIS REPORT FORM

PROJECT DETAILS	
Project Name	Phases R1 and R2 Rugby Gateway, Warwickshire
Short description (250 words maximum)	<p>A programme of archaeological investigation was undertaken by Cotswold Archaeology in June and August 2012 at the request of Bloor Homes and Cala Homes (Mids) Ltd at Phase R1 and R2 Rugby Gateway, Warwickshire. A post-excavation assessment (PXA) and updated project design (UPD) for the 2012 archaeological investigations was produced in March 2013 (CA 2013).</p> <p>In January 2014, a tree located at the north-western edge of Phase R2 Area D was felled, and the excavation area was extended under the former location of the tree (Fig. 2). In compliance with an approved Written Scheme of Investigation for Further Archaeological Works (CA 2011) an area of 25m² was excavated, bringing the combined excavation area for Phase R2 Area D to 50m² (Fig. 2)</p> <p>Excavations at Phase R2 Area D in 2012 revealed a well-preserved burnt mound complex, Bronze Age in date, located at the base of a valley on a natural spring line. Archaeological features excavated in 2014 included the continuation of the silting deposits, burnt mound material and a curving ditch excavated in 2012, along with additional pits, postholes and a second curving ditch.</p> <p>This document forms an addendum to the 2013 PXA and UPD (CA 2013). It presents a quantification and assessment of the evidence recovered from the 2014 excavation and outlines any alterations to the UPD set out in the 2013 PXA and UPD (CA 2013) for a programme of post-excavation work.</p>
Project dates	January 2014
Project type (e.g. desk-based, field evaluation etc)	Excavation
Previous work (reference to organisation or SMR numbers etc)	Evaluation (CA 2010); Excavation (CA 2013)
Future work	Unknown
PROJECT LOCATION	
Site Location	Rugby Gateway, Brownsover Road, Churchover, Warwickshire
Study area (M ² /ha)	25m ²
Site co-ordinates (8 Fig Grid Reference)	SP 5080 7840
PROJECT CREATORS	
Name of organisation	Cotswold Archaeology
Project Brief originator	Warwickshire County Council Archaeological Service
Project Design (WSI) originator	Cotswold Archaeology
Project Manager	Derek Evans
Project Supervisor	Peter James
MONUMENT TYPE	
Burnt mound	
SIGNIFICANT FINDS	
Charcoal	
PROJECT ARCHIVES	
Intended final location of archive (museum/Accession no.) Rugby Art Gallery and Museum (Accession No. RTA.1025)	Content (e.g. pottery, animal bone etc)
Physical	Flots, charcoal
Paper	Context sheets, matrices drawings, registers Black and White photos

Digital		Database, Digital photos Survey Data
BIBLIOGRAPHY		
CA (Cotswold Archaeology) 2010 <i>Rugby Gateway (Phases 1 and 2), Rugby, Warwickshire: Archaeological Evaluation</i> CA report 10157		
CA (Cotswold Archaeology) 2013 <i>Phases R1 and R2 Rugby Gateway, Warwickshire; post-excavation assessment and updated project design</i> CA report 13065		



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PROJECT TITLE
 Phase R1 & R2, Rugby Gateway
 Warwickshire

FIGURE TITLE
 Site location plan

DRAWN BY LG/AO	PROJECT NO. 669002	FIGURE NO.
CHECKED BY JB	DATE 06/05/2015	1
APPROVED BY NP	SCALE @A4 1:25,000	

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SP

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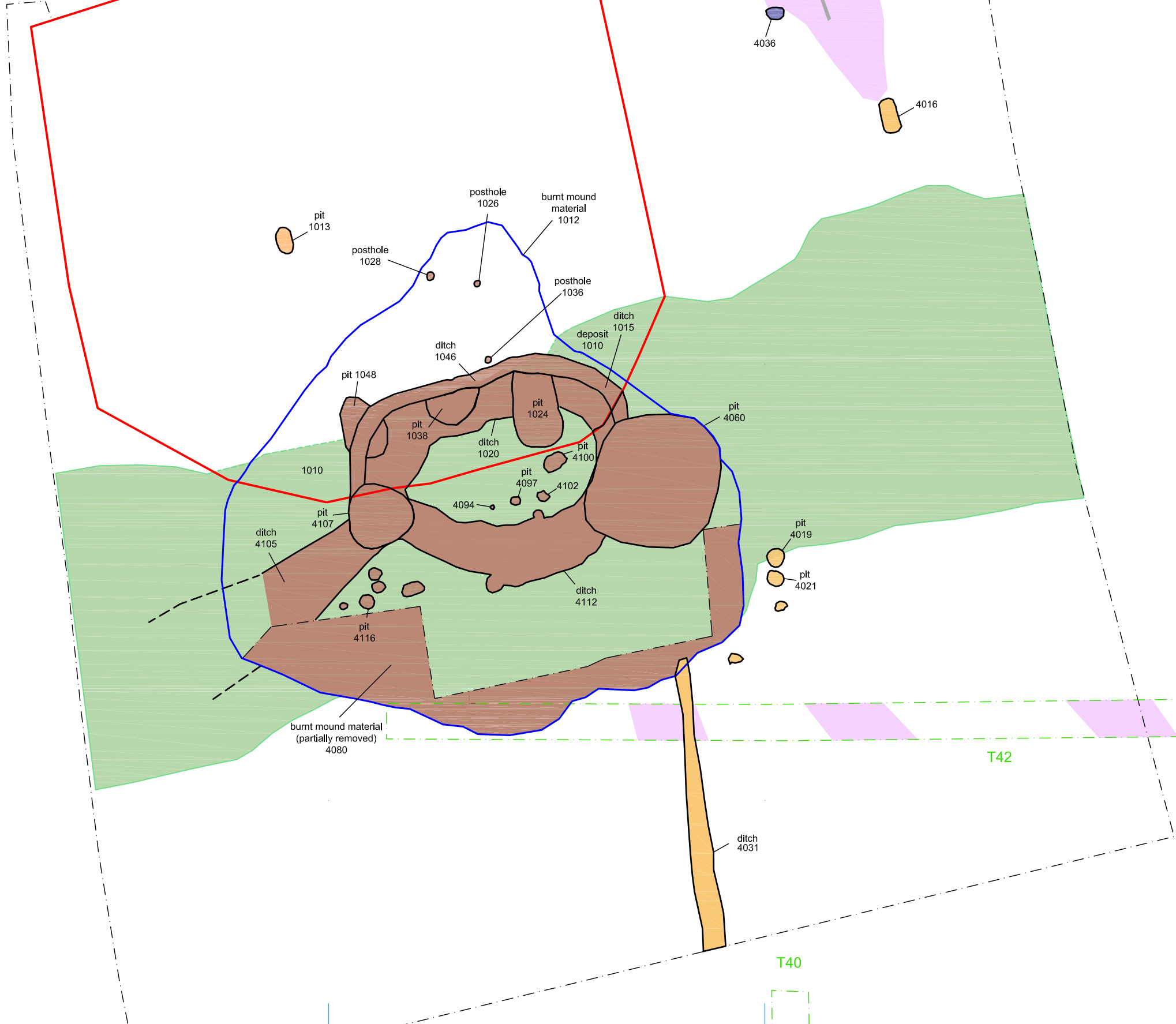
7786

AREA D

T41

7784

7782



-  extension to site boundary
-  limit of excavation
-  evaluation trench
-  early prehistoric valley silting
-  Bronze Age
-  extent of burnt mound
-  post-medieval
-  undated
-  modern intrusion
-  furrow



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PROJECT TITLE
 Phase R1 & R2, Rugby Gateway
 Warwickshire

FIGURE TITLE
 Revision to plan of Area D, showing
 features excavated after removal of
 tree

DRAWN BY	AO	PROJECT NO.	669002	FIGURE NO.
CHECKED BY	JB	DATE	24/06/2015	
APPROVED BY	NP	SCALE@A3	1:200	2

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